REMARKS

This is in response to the Office Action of August 22, 2007. Claims 2 and 14 are amended to more clearly define the invention, and also based upon disclosure in lines 19-25 on page 24 of the specification: "component (G) may be an oligosiloxane which is a condensate of hydrolyzed products of the silane .... An optimal degree of polymerization is ... preferably 10 or smaller." Claims 2-4 and 9-16 remain pending in the application.

Formal rejection

Claims 2-4 and 9-16 were rejected under the second paragraph of 35 U.S.C. § 112 as failing to define the invention properly. Office Action, page 2. It is respectfully submitted that the present amendment of claims 2 and 14 obviates this ground of rejection.

Rejections over prior art

Claims 2-4 and 9-16 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or under 35 U.S.C. § 103(a) as being unpatentable over, DE 24 49 085 to Hoeckemeyer et al. ("Hoeckemeyer"). Office Action, pages 2-4. The rejection is respectfully traversed.

At the top of page 3 of the Office Action, the Examiner implied that the phrase "condensate of the silanol" which formerly appeared unmodified in the claims, was so broad as to read on the prior art. The upper limit of the condensation or polymerization is now specified in the claims as: "a condensate of such a silanol with a degree of polymerization of 10 or less." In the present invention, the condensation proceeds relatively slowly, so that the degree of polymerization does not exceed 10 in a practical period of mixing time. A condensed silane with

a condensation (that is, polymerization) degree of 10 or less is different from Component (A2) of the claimed compositions. Specifically, the condensed silanol (G) has a viscosity smaller than 0.05 Pa·s, which is the lower limit of Component (A2).

On pages 3-4 of the Office Action, under the subdesignations 4.b and 4.c, the Examiner provides additional rationale for the rejection. In order to controvert the Examiner's rationale, Applicants submit herewith experimental data in support of Applicants' position that the prior mixing of the silane (G) with water[1] attains superior oil repellency. This experimental data is in the form of a 'Declaration under 37 CFR 1.132' by Mr. Kenji Yamamoto.

In the experiment, Composition (II) was prepared by mixing all the components at the same time to allow silane to be partitioned between an aqueous phase comprising PVA and silicone phase. As shown in the Results section of the Declaration, oil repellency of the paper treated with composition (II) was lower than that treated with Composition (I) prepared by mixing the silane with water prior to mixing with other components. This indicates that concentration of silanol and/or condensate of the silanol in the aqueous phase comprising PVA of Composition (II) was lower than that in Composition (I).

When water is added after mixing the silane to other components, the concentration of silanol and/or condensate of the silanol in the aqueous phase cannot be higher than that in Composition (II) and is more likely lower because the silane already dissolved in the silicone phase will not be transferred to the aqueous phase easily.

Thus, it is manifest from the empirical data now of record that the product of the present invention is neither the same as nor obvious from the product described in the Hoeckemeyer

[1] In the claims: "a silane (G) containing a hydrolyzable group, at least part of the silane (G) having been converted to silanol by mixing the silane (G) with water (E) prior to adding the silane (G) to other components."

reference (DE 24 49 085).

For the several reasons discussed above, the present invention is unobvious over the Hoeckemeyer disclosure. Withdrawal of the rejection of claims 2-4 and 9-16 in their current form is earnestly solicited, as is passage of this application to Issue.

Contact information

The Examiner is invited to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008 with any questions pertaining to this application.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By _____ #28,781
Gerald M. Murphy, Jr., #28,977

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

GMM/RG
4710-0106P